

User Manual

I. View for Wheel Loader

English



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3B6®

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Index – Revision Notes

Rev. Index	Rev. Date	Sw Compatibility	Revision Notes
00	30/05/2012	WS 10_23	View2
01	21/11/2012	WS11_00	Update Languages

1

Preview

The information on this document could be subject to change without notice.

The constructor is not responsible for possible content mistakes or misprints that could be present in this manual.

Any reproduction, translation or copy of parts of this manual is forbidden without prior written authorization by the constructor.

WARNING:



Modifications not expressly approved by COBO Division 3B6 cause the loss of authorization to operate the system.

WARNING:



Before starting operations, the user should read and understand this manual and follow the contained instructions

2

Warnings

1.1 Use of the System

The following directions should enable the person responsible for the system, and the person who actually uses the instrument, to anticipate and avoid operational hazards.

The person responsible for the instrument must ensure that all users understand these directions and adhere to them.

Prohibited uses

- Using the system without instruction
- Using outside the stated limits
- Opening of the equipment by using tools (screwdrivers etc.)
- Carrying out modification or conversion of the product
- Use of accessories from other manufacturers without the express approval of COBO Divisione 3B6
- Inadequate safeguards at the surveying site (e.g. when measuring on roads, power lines)



WARNING:

The chance of injury, malfunctions and damage to the equipment if not used as specified. The owner has to inform the user of the hazards in use, protective and counter measures to take.

1.2 Areas of Responsibility



WARNING:

The person responsible for the instrument must ensure that the equipment is used in accordance with the instructions. This person is also accountable for the deployment of personnel and for their training and for the safety of the equipment when in use

The Person in charge of the instrument has the following duties:

- To understand the safety instructions on the product and the instructions in the User Manual.
- To be familiar with local safety regulations relating to accident prevention.
- To inform COBO Divisione 3B6 immediately if the equipment becomes unsafe.

1.3 Checks the user must perform

To ensure continuous and safe operations of the system the following checks must be performed regularly by the user.

Before to start to work with the system, following checks should be made:

- Cable integrity and connectors tightening
- Angle Sensors integrity and tightening

1.4 Hazards in Use

All users must follow the safety instructions given by the manufacturer and the directions of the person responsible for the instrument.

**WARNING:**




The absence of instruction, or the inadequate imparting of instruction, can lead to incorrect or prohibited use, and can give rise to accidents with far-reaching human, material, financial and environmental consequences.



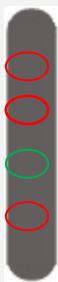
3

Characteristics

3.1 VIEW



View2	Description
	LEFT/RIGHT Keys Refer to the Operating Mode
	UP/DOWN Keys Refer to the Operating Mode
	ENTER Key Refer to the Operating Mode

View2	Description
	SETTING Keys Refer to the Operating Mode
	FUNCTION Keys Refer to the Operating Mode
	LEDs Bar Refer to the Operating Mode

3.2 REMOTE CONTROL

For Front Loader System with proximity sensors and Fork Lift System



Ref.	Description
1	Buzzer
2	Cable
3	Booking switch <i>Short press:</i> <ul style="list-style-type: none"> • Enable/Disable the weighing system (OnDemandSum function OFF. Same function of "Booking" key on the Control Box). • Add the partial weigh to the total weigh (OnDemandSum function ON. Same function of the "Right arrow" key on the Control Box). <i>Long press (5 sec):</i> Total value (truck) ticket print and total value (truck) zeroing.
4	Print the total (truck) ticket
5	Load Zeroing switch <i>Short press:</i> Partial value (last bucket) zeroing <i>Long press (5 sec):</i> Total value (truck) zeroing

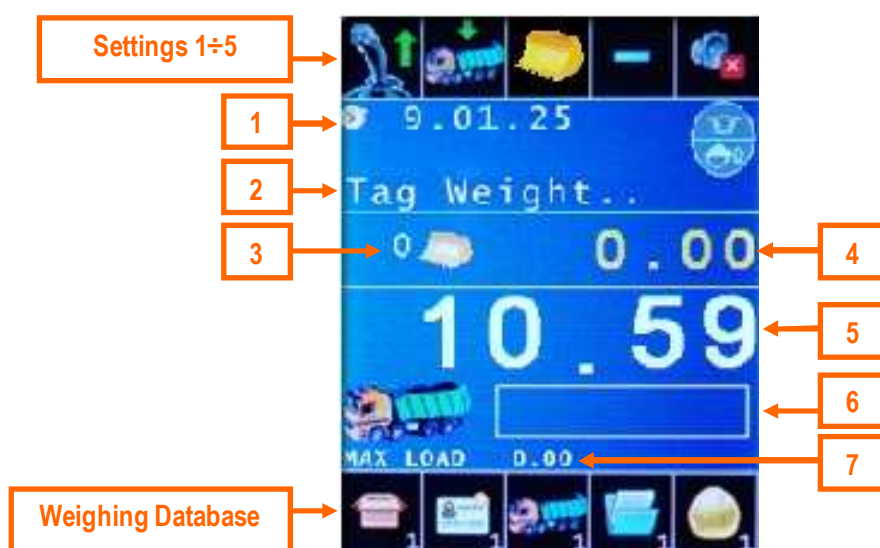
4

Operating Mode

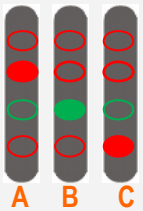
The system is based on the measurement of the pressure of the lifting cylinder in the rising phase (by means of the pressure transducer) and the calculation of the up speed (with an inclinometer).

4.1 MAIN OPERATING SCREEN









In the working screen is possible to check the truck load and all the active functions.



Ref	Description
1	Clock (hh.mm.ss)
2	Status and Instructions
3	Bucket number
4	Partial load (last bucket load)
5	Total load (material on the truck)
6	Truck load graphical bar
7	Weighing Database displayed in sequence: max load, project, operator, material, client, truck

Ref	Description
	LEDs Bar Weighing Instructions A Red LED ON : move down the bucket B Green LED ON : bucket on grade C Red LED ON : move up the bucket
	Max Load Indication D Red LEDs ON: actual load > to the max load set E Green LED ON: actual load < to the max load set


SETTINGS

Ref	Description
1	Auto-Book (always active)  The weighing function is always enabled. The weighing procedure will be activated every time that the boom overtakes the start weigh angle or the proximity sensors.
2	Max Load  Max load function non active  Max Load set  Max Load reached
3	Tare  No Tare set  Tare set
4	Count-Down  Count-down function non active  Count-down function active





Ref	Description
5	Buzzer  Buzzer disabled  Buzzer enabled




WEIGHING DATABASE

Database Area with selected item number. The Databases are displayed by Function Keys

F. Key	Description
	 Materials Menu Enter the Materials Database
	 Clients Menu Enter the Clients Database
	 Trucks Menu Enter the Trucks Database
	 Projects Menu Enter the Projects Database
	 Operators Menu Enter the Operators Database

SETTING KEYS

Key	Description
	Add the partial weigh to the total weigh (with OnDemandSum function enabled)
	Menu Key Short press: Enter Option Menu Long press: Enter Setup Menu (diagnostic and calibration functions)
	Booking key Enable/disable the weighing system (with OnDemandSum function disabled)
	Print key Short press: Enter Printer page Long press: Print the ticket

Key	Description
	Exit key Switch Off the Alarm Clock buzzer (when active)
	Zeroing key Enter the Tare Setting
	Enter the Partial/Total Deletion page

4.2 WEIGHING PROCEDURE

During the weighing phase it's necessary to:

- Keep the machine on a levelled ground.
- Don't move the machine (no fast accelerations or heavy brakes)!
- The bucket should be completely closed when you start the weigh and can't be manually moved during the weighing phase.
- Don't stop the movement (dynamic weighing!).
- Keep a constant speed.



Fig 1: Enable the weighing system

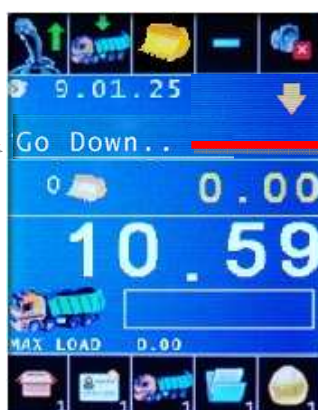


Fig. 2 Move down the boom

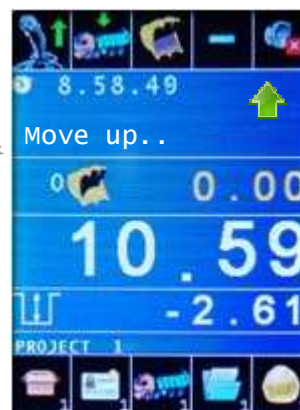


Fig. 3 Rise the boom to start the weighing

Weighing Instructions

Partial Load

Total Load

- Enable the weighing system by pressing  (Fig. 1).

It's not needed to press the button every time that it's necessary to weigh because the weighing system it's always ready. The button will work as enable or disable switch of the weighing system ("Auto-Book" function is always active).

- Follow the on-screen instruction:

If the boom is above the "start weigh" point, will be necessary to move down the boom (Fig. 2).

- When the boom will be in the correct position "Ready to weigh", with the indication "move up" (Fig 3) it's possible to perform the weighing rising up the boom.

- Overtaken the "start weigh" point there will be the on screen "Weighing..." indication and the control box buzzer will be ON.

If the weighing is correct the load in the bucket will be shown on the partial weight and the value will be also added to the total.

In a negative (or 0) load in the bucket will be computed, the value will be not added to the total.

If an error happens during the weighing phase there will be the relative message on the screen. The load will be not added to the total.

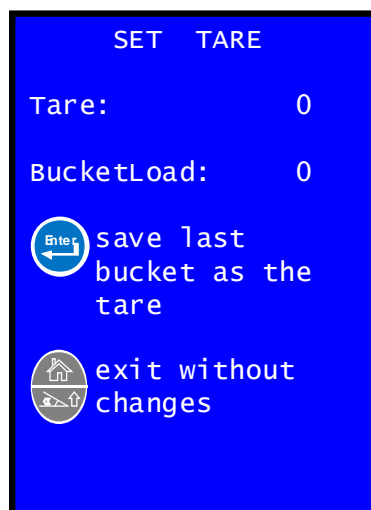
4.3 WEIGHING SETTINGS

4.3.1 Tare

To keep the system accurate, it's necessary to perform a new tare acquisition in particular work conditions:

- The machine is cold (first movements of the day). Repeat the check when the oil temperature is stable.
- The bucket has been changed (smaller/bigger).
- Some material stays in the bucket (not possible to unload it).
- The hydraulic circuit oil has been changed.

- From the main operating screen press  to access the "SET TARE" page.






Actual Set Tare


Load of the last weigh

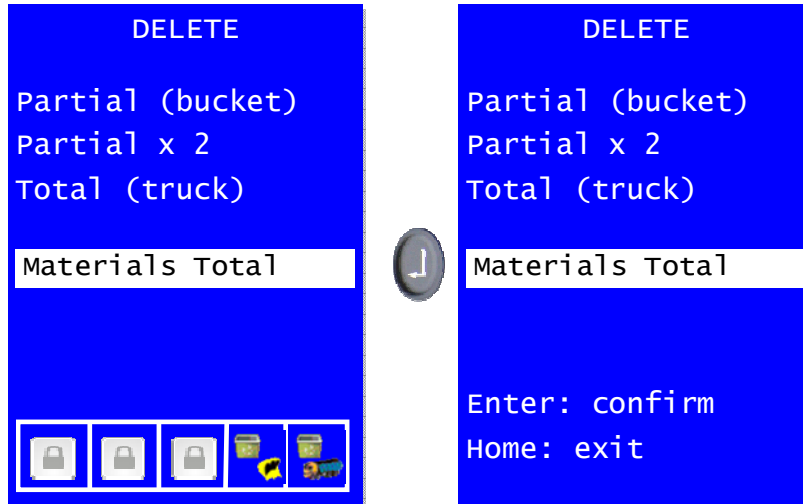


Tare Setting

- Perform an empty bucket weigh
- Enter the "SET TARE" page
- Press  to update the tare value with the last bucket load
- Press  to delete the set tare
- Press  to go back to the operating screen.

4.3.2 Delete Partial/Total Load

- From the main operating screen press  to access the Delete Menu.




Partial (bucket)

To be used if the bucket has been wrong or accidentally weighed and the material will not be putted on the truck.

- Press  to delete the last bucket weighed.





Total (truck)

- Press  to cancel the total load (before start a new truck loading).





Partial x 2 (TRUCK FILL / RESIDUE MATERIAL)

When the last bucket load did not empty completely, to find out the effective total quantity unloaded, weigh the material which has remained in the bucket and use this function. This function will remove twice the last value weighed from the total so that you can find out the total value of material which has really been put into the truck.

- Use  to select the function and press  to enter.

Materials Totals

To delete the totals in the memory (example material summary totals).

- Use  to select the function and press  to enter.
- Press  to confirm the deletion.
- Press  to go back to the previous screen. Once confirmed, the screen goes back to the operating screen.

4.4 OPTIONS MENU

- From the main operating screen press  to access the menu



OPTIONS	
Brightness	100
Graphics	
Key Beep	OFF
wait Beep	ON
Clock Settings	
Alarm Clock	
OnDemandSum	OFF
Countdown	OFF
Machine N.	1

Brightness

Display brightness settable from 0 to 100

Graphics

Menu to set the display item colours

Key Beep

OFF: no sound when a control box button is pressed

ON: sound when a control box button is pressed

Clock Settings

Time and date setting menu.





Alarm Clock

Alarm clock setting menu.

Machine N.

System can store up to 2 calibrations (same control box on 2 different machines). Select here the machine in use.

Set Options

- Use  ,  to select, enable/disable functions and  to access, confirm the setting.
- Press  to go back to the operating screen.

4.4.1 Buzzer




Wait Beep

This function enabled the buzzer will sound (flashing) when the weighing is booked. The frequency changes if the boom is higher or lower than the start weigh point.

- ON: Function enabled
- OFF: Function disabled

4.4.2 OnDemandSum

Wait for the user interaction to add the partial load (last bucket) to the total load (truck) After a weighing, the bucket load is computed and shown in the partial load value, but it's not automatically added to the total load and the bucket

number it's not changed. To use and add this value the operator has to press the  key.

- **ON:** Function enabled.

Note: with this function enabled the Booking switch quickly pressed on the Remote Control replicates the "DX" key

- **OFF:** Function disabled. The partial load is automatically added to the total load at every weighing.

4.4.3 Countdown



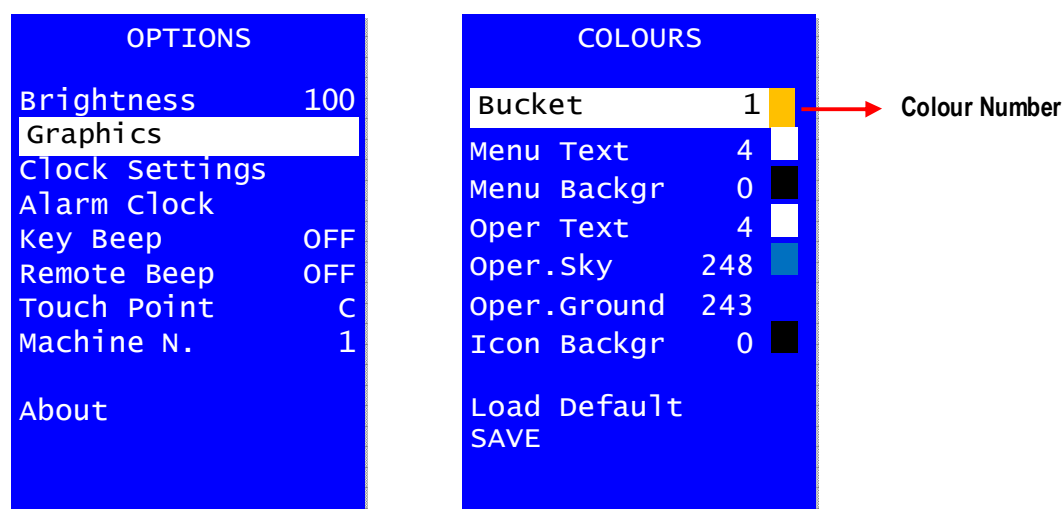
This function to weigh decreasing from the truck max load. The initial value for the scalar counting is the value set as maximum load (to set the maximum load see the dedicated page in this manual).

On activating the Countdown function the maximum load value is shown on the display. Each partial is subtracted from the maximum load and the maximum load exceeded will be indicated on the screen with a warning when the load drops below zero.

- ON: Function enabled
- OFF: Function disabled. The partial load is added to the total load at every weighing.

4.4.4 Graphics


Is possible to change the control box display item colours. The colour number is shown together with an example box.






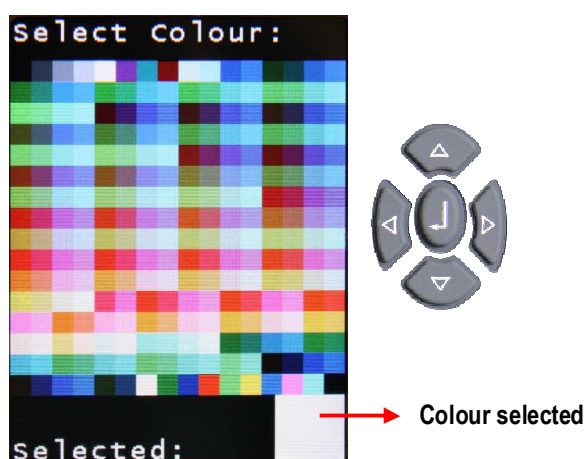
Load default

Load the default settings

SAVE

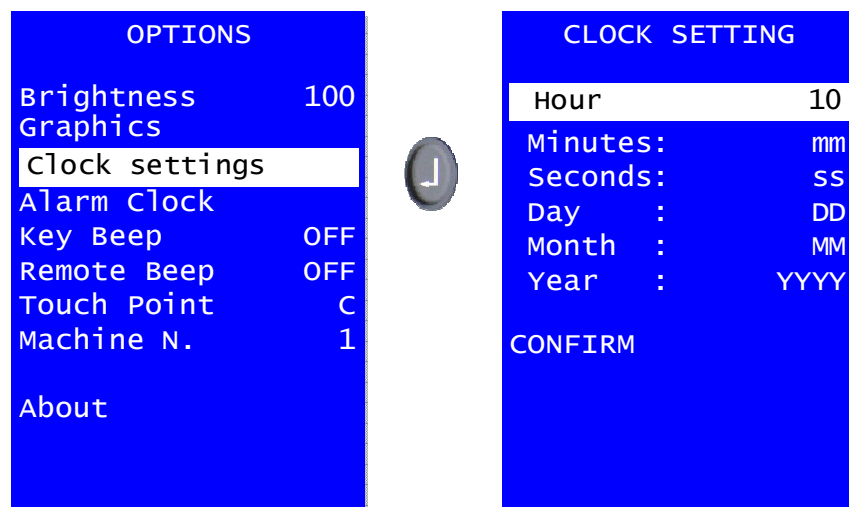
It's necessary to press  over SAVE to keep the change the next time the system will be powered on.









- Use  ,  to select item and press  to enter the setting. The colours palette will be displayed.
- In the colour palette use arrows keys (up, down, left, right) to select the desired colour and "enter" key to confirm



4.4.5 Clock Setting

Control box clock setting.

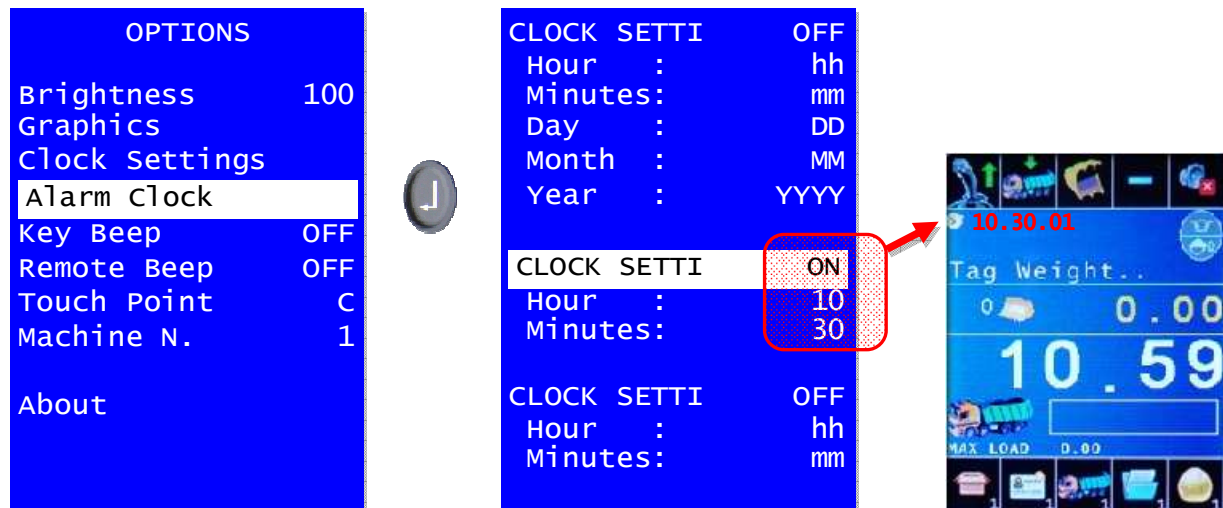


- Use  ,  to select function and  to enter the setting
- Use  ,  to set the desired value and press  confirm.
- Press  over “CONFIRM” to save.
- Press  to exit without changes.

4.4.6 Alarm Clock

1st Alarm Clock is used to sound at a specified time.

2nd, 3rd Alarm Clock sound always at the same time (like start and end of the day).



CLOCK SETT OFF/ON

Enable/disable (ON/OFF) the desired alarm clock

Hour/Minutes/Day/Month/Year

Alarm Clock Settings

Change the alarm clock time over the proper line

- Use , to select function and to enter the setting
- Use , to set the desired value and press confirm.
- Press to exit.


When the alarm occurs, the buzzer will irregularly sound and the time indication in the working screen will become red.

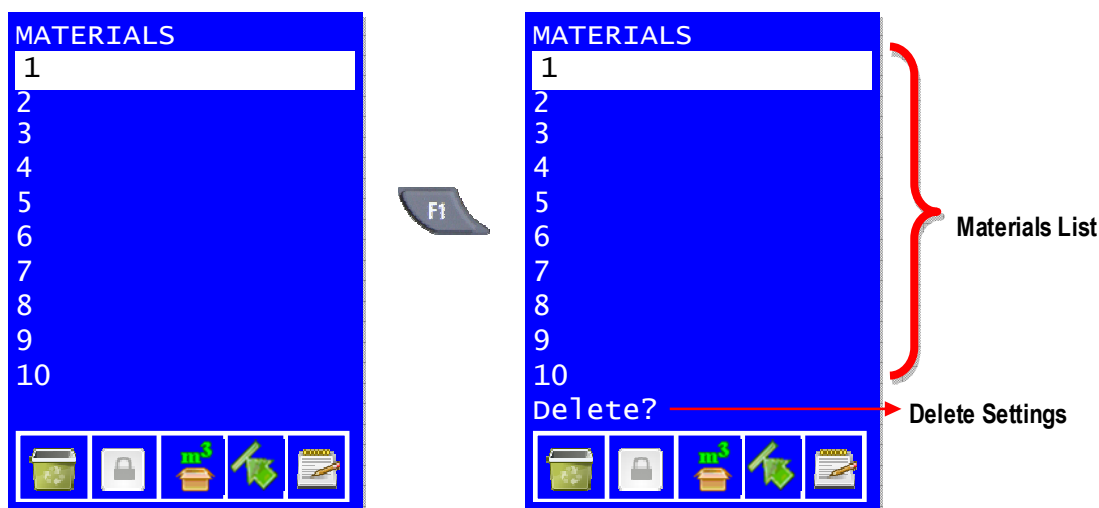
- Press to switch off the alarm buzzer





4.5 WEIGHING DATABASE MENUS

4.5.1 Material Menu




System can store up to 200 different materials, each with a name up to 16 characters long.

- From the main operating screen press  to access the menu





- Use  to select a material in the list (10 for page).
- Use  to scroll the list pages
- Press  to go back to the operating screen or exit a function
- Press  to return to the first material page

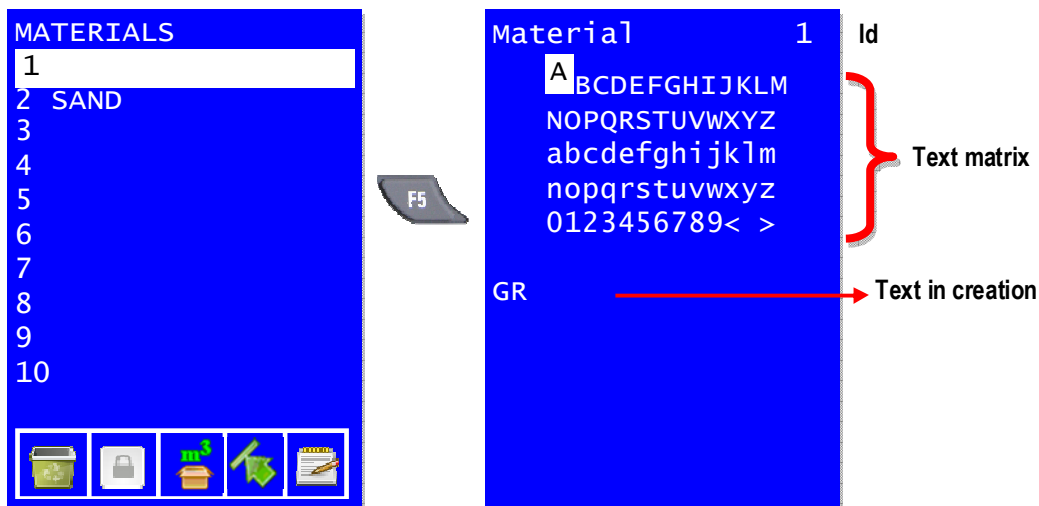
Settings

- Press  to set material to weigh and return to the operative screen.
- Press  to set the material density
- Press  to set the material name

Delete Settings

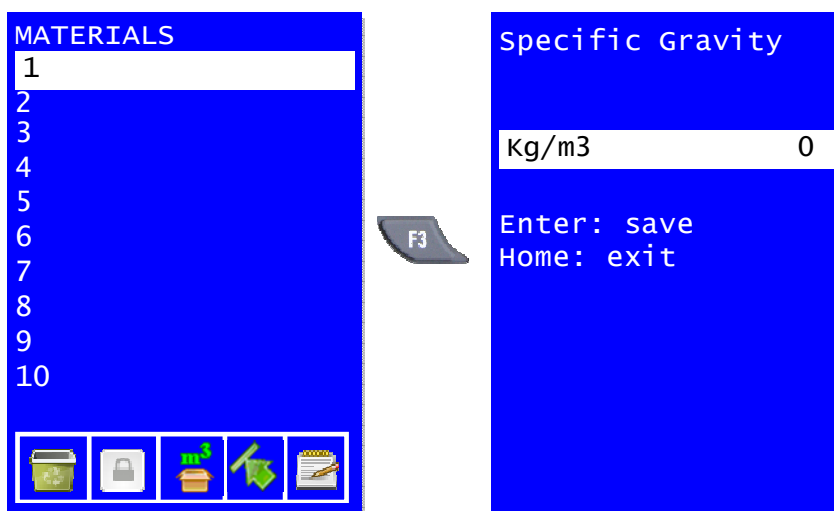
- Press  to enter the selected client data deletion and confirm with  key.

Set Material names



- Select material id and press to enter the name setting.
- To set a name select in the text matrix the desired character using , , , and press to add it to the text in creation.
- Press to confirm value and return to the previous page.


Set Material density

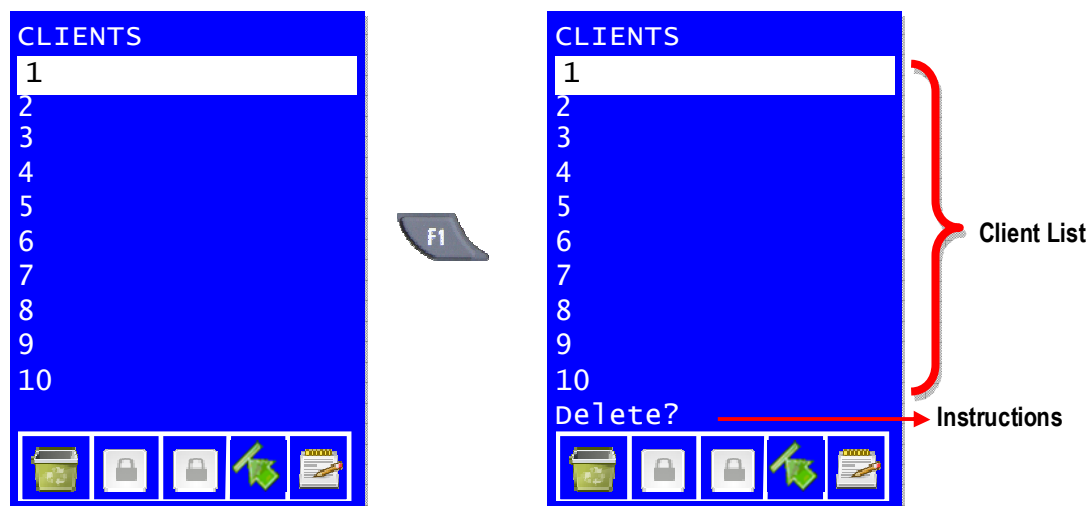









- Use , to set value (available only in Kg/m3).
- Press to confirm value.
- Press to go back to the previous screen.

4.5.2 Customer Menu




System can store up to 500 different clients, each with a name up to 16 characters long.

- From the main operating screen press  to access the "CLIENTS" menu.






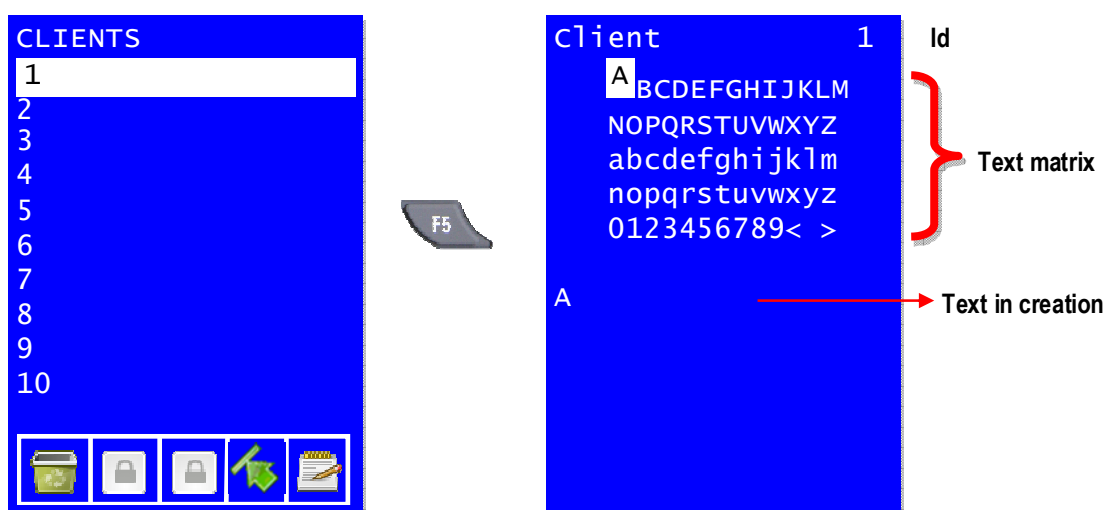
- Use ,  to select clients (10 for page) .
- Use ,  to scroll list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first page

Settings






- Press  to set the client and return to the operative screen.
-  Press  to set the material name


Delete Settings

-  Press  to enter the selected client data deletion and confirm with  key.

Set Client name


➤ Select client id and press  to enter the name setting.

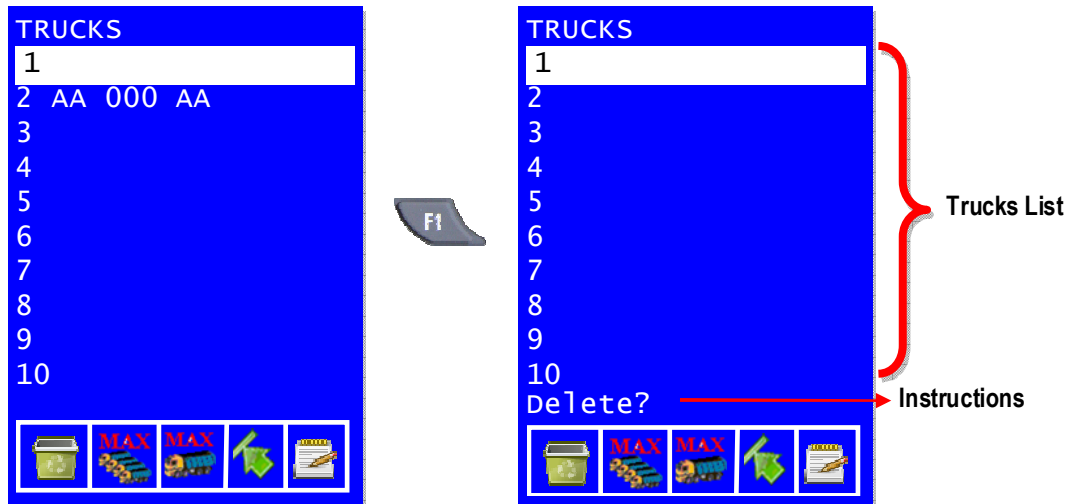
➤ To set a name select in the text matrix the desired character using , , ,  and press  to add it to the text in creation.








➤ Press  to confirm value and return to the previous page.

4.5.3 Trucks Menu








System can store up to 500 different trucks, each with a name up to 16 characters long.

- From the main operating screen press  to access the menu.






- Use  ,  to select trucks in the list (10 for page) .
- Use  ,  to scroll the list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first truck page.

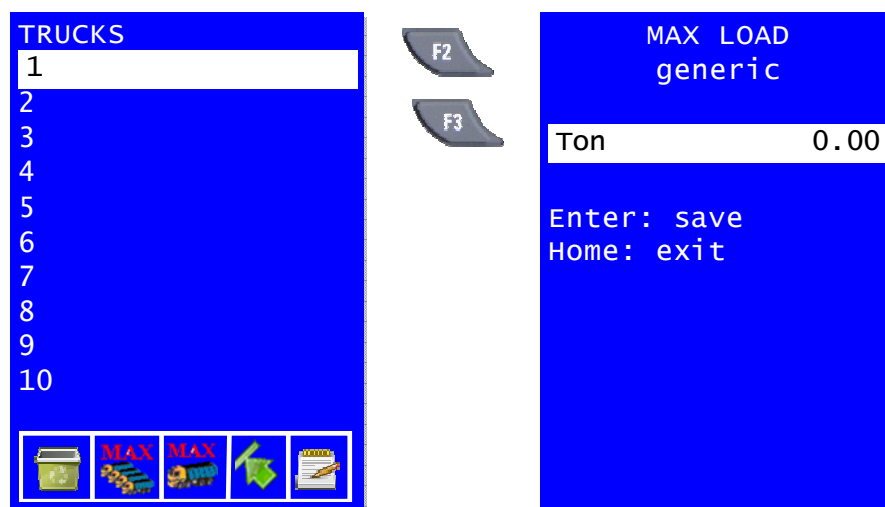
Settings

- Press  to set truck and return to the operative screen.
-  Press  to set the max load for all the trucks.
-  Press  to set the max load that the truck can handle.
-  Press  to set the truck name.

Delete Settings

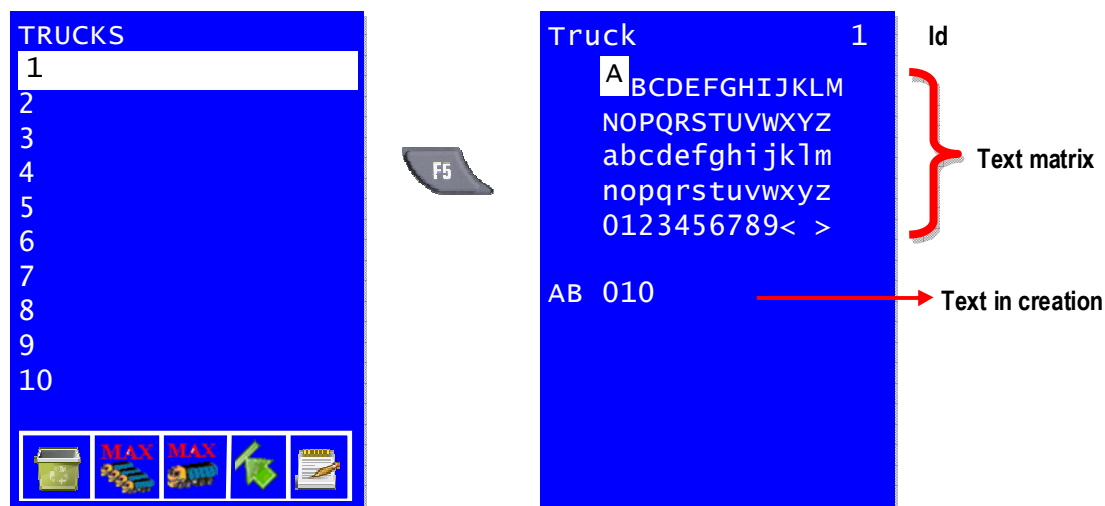
-  Press  to enter the selected truck data deletion and confirm with  key.

Set max load



- Use , to set value.
- Press to confirm value.
- Press to go back to the previous screen.

Set names

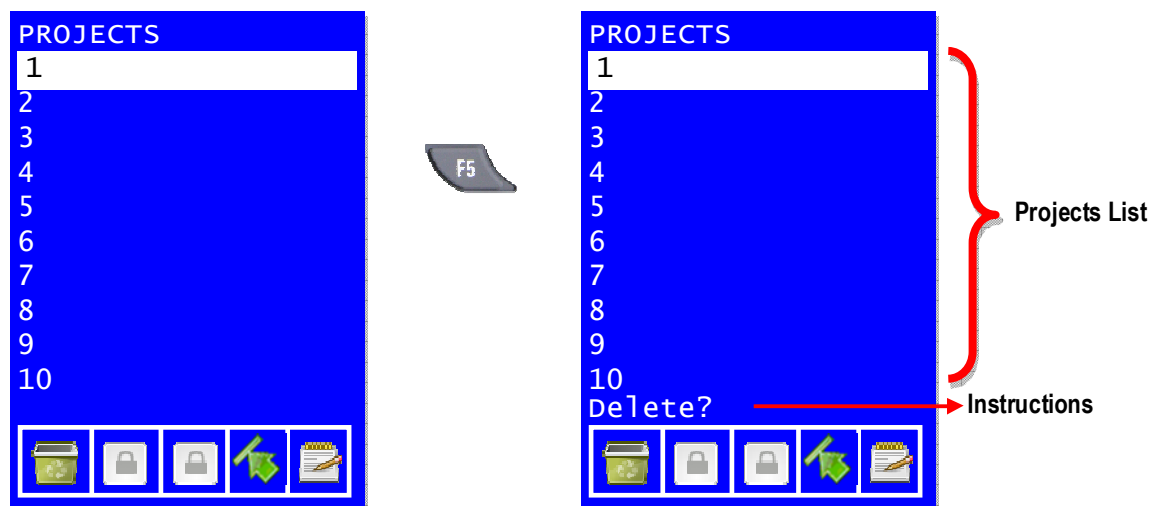









- Select truck id and press to enter the name setting.
- To set a name select in the text matrix the desired character using , , , and press to add it to the text in creation.
- Press to confirm value and return to the previous page.

4.5.4 Projects Menu




System can store up to 100 different projects, each with a name up to 16 characters long.

- From the main operating screen press  to access the "PROJECTS" menu.



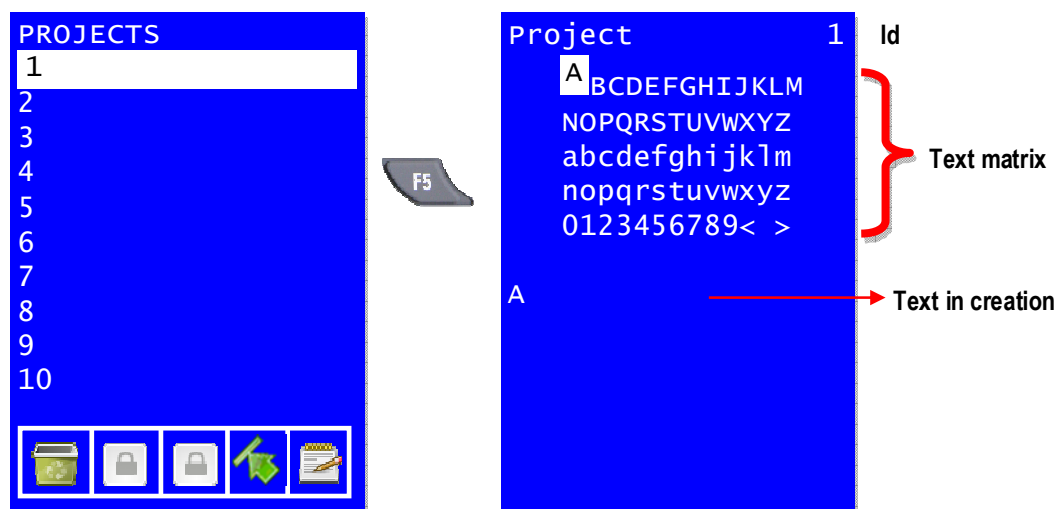
- Use ,  to select projects (10 for page) .
- Use ,  to scroll the list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first page.

Settings






- Press  to set the project and return to the operative screen.
-  Press  to set the project name.


Delete Settings

-  Press  to enter the selected project data deletion and confirm with  key.

Set names

- Select client id and press  to enter the name setting.

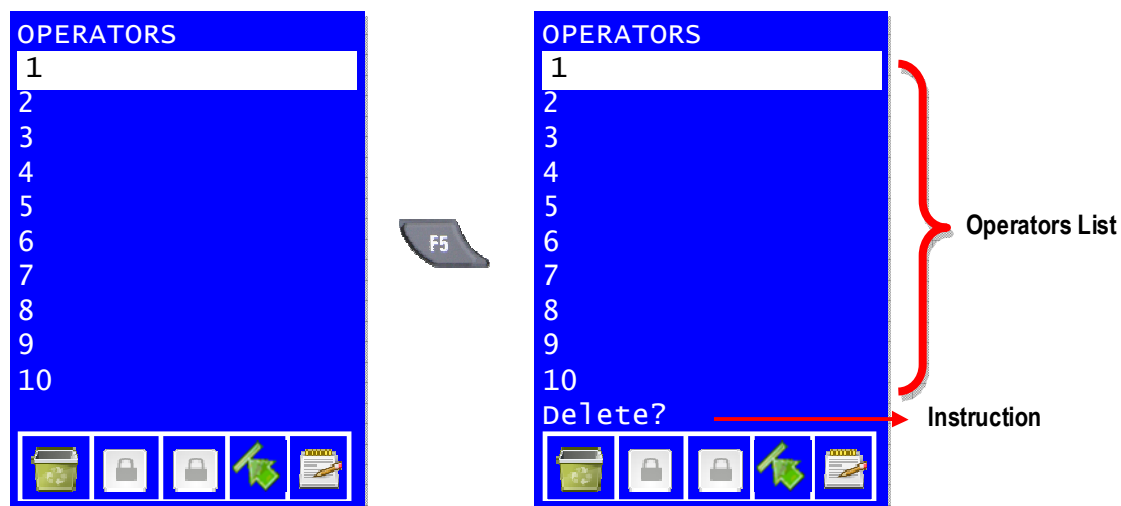
- To set a name select in the text matrix the desired character using , , ,  and press  to add it to the text in creation.








- Press  to confirm value and return to the previous page.

4.5.5 Operators Menu




System can store up to 50 different operators, each with a name up to 16 characters long.

- From the main operating screen press  to access the "OPERATORS" menu.



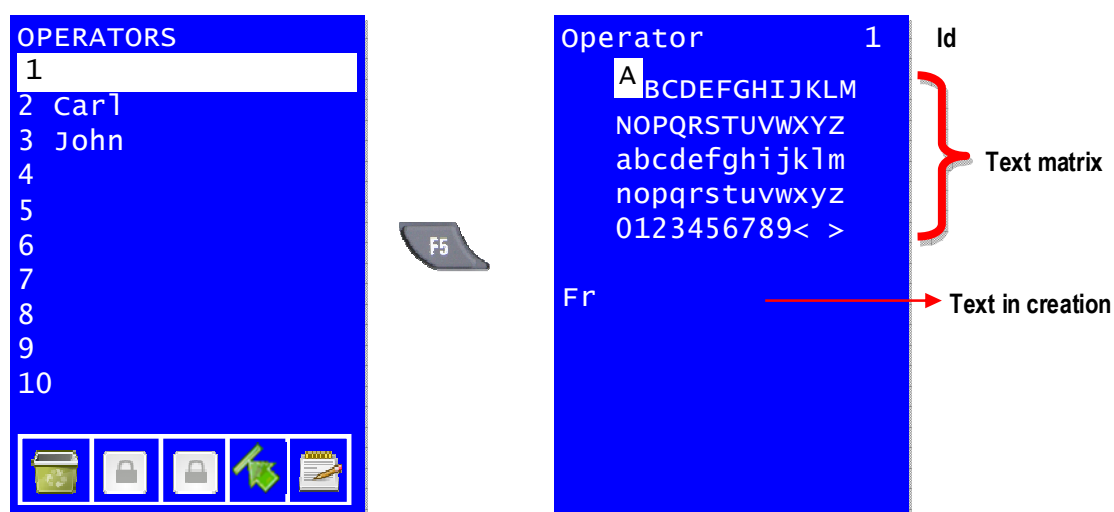
- Use ,  to select operators (10 projects display for each page) .
- Use ,  to scroll the list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first page.

Settings






- Press  to set the operator and return to the operative screen.
-  Press  to set the operator name.


Delete Settings

-  Press  to enter the selected project data deletion and confirm with  key.

Set operator name


- Select operator id and press  to enter the name setting.

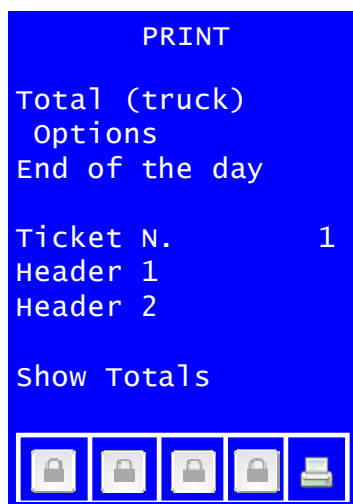
- To set a name select in the text matrix the desired character using , , ,  and press  to add it to the text in creation.

- Press  to confirm value and return to the previous page.

4.6 STP6 PRINT MENU

Print Menu for printer STP6.

- From the main operating screen press  to access the "PRINT" menu.



Total (truck)

Print the total load of the actual truck.



Options

Menu of the additional information that can be enabled/disabled in the ticket options page.

End of the day

Print summary Menu

Ticket N. Sequential number of the printer ticket automatically increased at every total (truck) print.

- Press  to enter the setting ,  or  to set value. Press  to confirm.

- Press directly  to return to "1".

Header 1 / Header 2

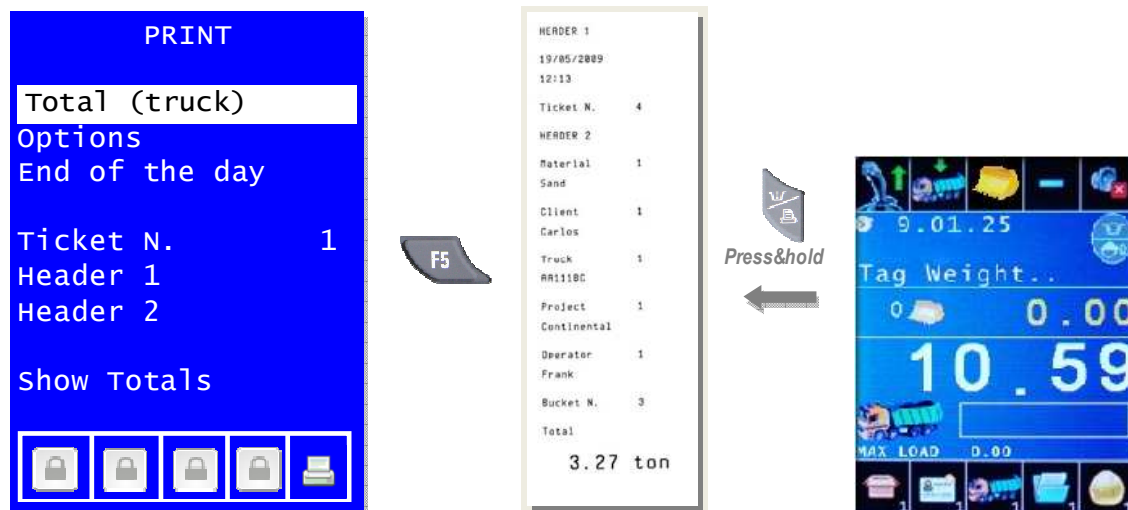
First and second header of the ticket

Shows Totals

Totals Menu

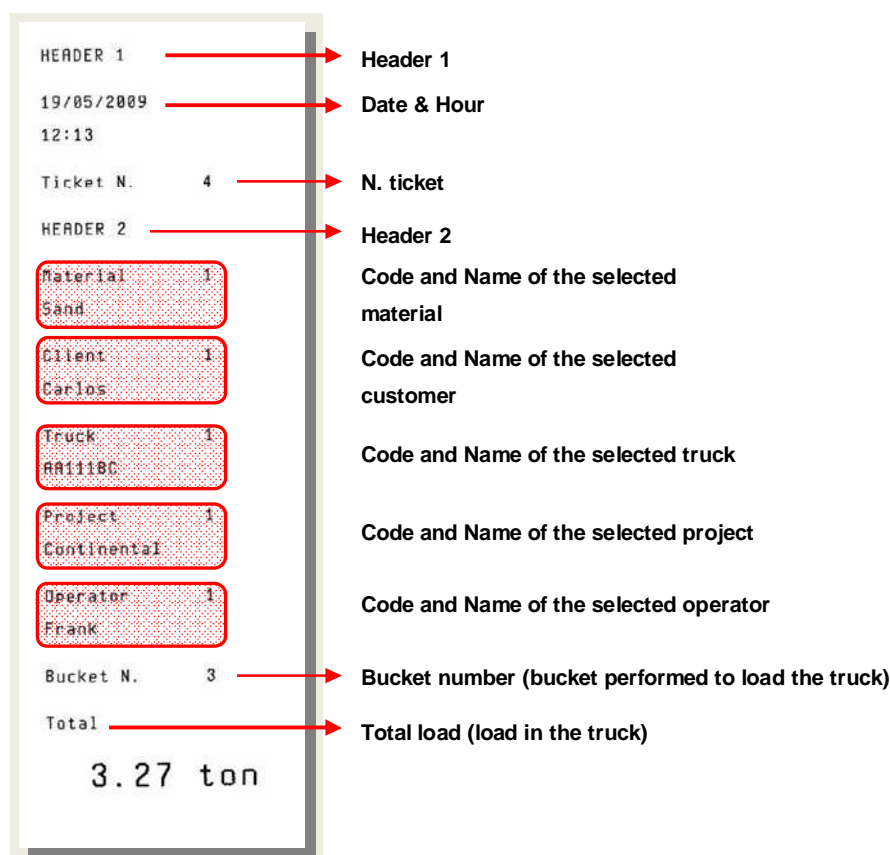
4.6.1 Total (truck): Print Ticket

Printing of the total load of the actual truck. The ticket has various additional information that can be enabled/disabled in the ticket "OPTIONS" menu.



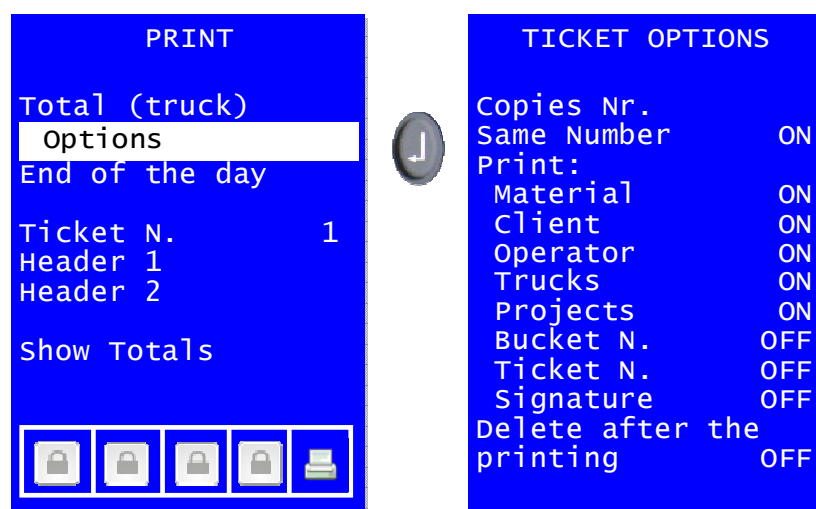
➤ From the "Print Menu" press  to print the ticket.

➤ The ticket can be also printed immediately from the main operating screen by keeping pressed .



4.6.2 Options

It's possible to customize the printer ticket in the **Options Ticket** menu.



Copies Nr.

Number of copies printed automatically.

Same Number

ON: Keep the same ticket number for all the copies printed automatically.

Print (Material, Client, Operator, Trucks, Projects, Bucket N., Ticket N., Signature)





Ticket optional information

ON: Optional information included in the ticket

Delete after the printing

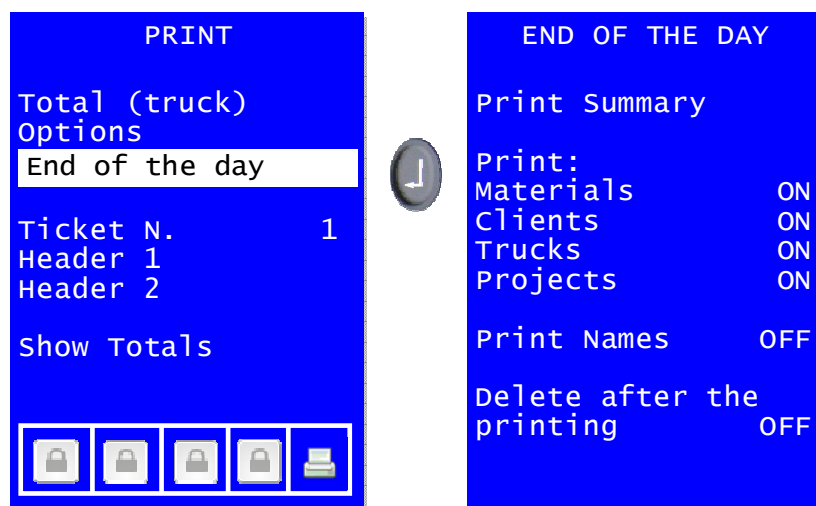
ON: for zeroing the actual truck load automatically after the printing.

Options Setting (ON/OFF, Values)

- Press  to enter the setting and use  ,  to set (ON/OFF or values).
- Press  to return to the previous page.

4.6.3 End of the day

At the end of a truck load, when the “Delete Total” function is used, the total load shown on the display is added in a dedicated memory that creates the history (summary) of the loaded material called “**totals**” (end of the day summary). Is recorded all the material loaded separated by Materials, Clients, Trucks and Projects.



Print Summary

Pressing  will be printed the total of every item.

Eventually it's possible to choose what has to be printed (Print: OFF/ON).

Print :Materials / Clients / Trucks / Projects Enable/disable the totals to print.

- **ON** : Total to print
- **OFF** : Total not to print


Print Names Enable/disable the printing of the eventually materials, clients, trucks and projects names.

- **ON**: Print names
- **OFF**: Not print names

Delete after the printing

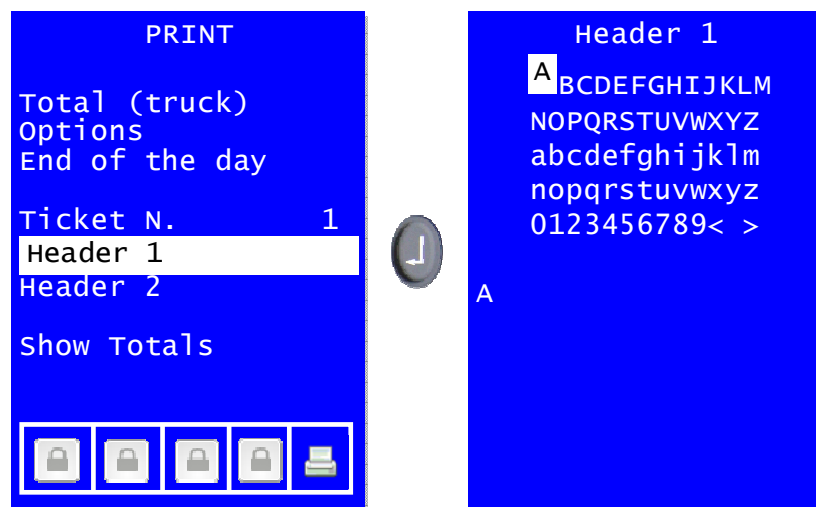
- **ON**: The totals database will be automatically deleted at the print end.
- **OFF**: The totals database will stay in memory and incremented (in case of new loads) up to the use of the function “Materials Total” from the DELETE menu.

➤ Press  to enter the setting and use  ,  to set. Confirm with  key.

➤ Press  to return to the previous page.

4.6.4 Header 1 / 2


It's possible to customize the ticket header.




Header 1 / 2

In the ticket header 1 it's possible to set 8 lines of 16 characters that will be printed at the beginning of the ticket.

In the ticket header 2 it's possible to set 8 lines of 16 characters that will be printed below the date and time.

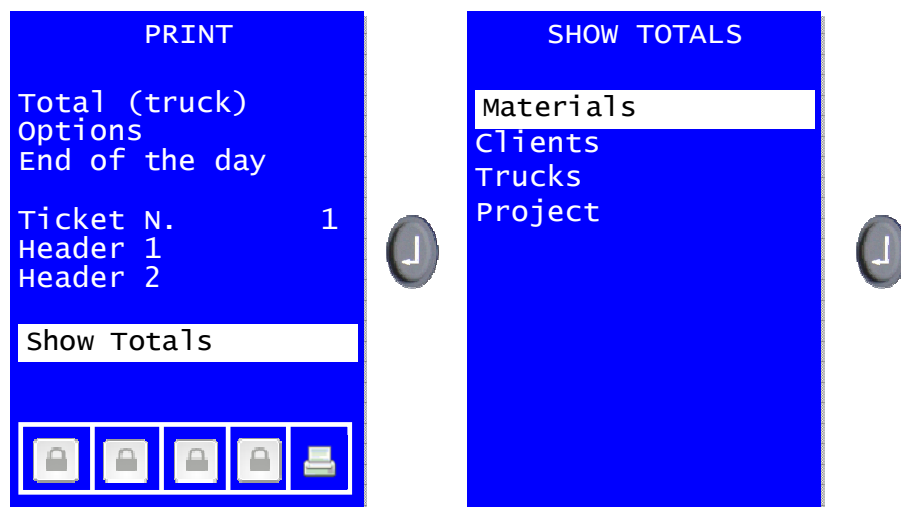
- To set a name select in the text matrix the desired character using the arrows and press  to add it to the text in creation.

It's possible to use the special character "<" and ">" to move the cursor in the text and change/correct a character.

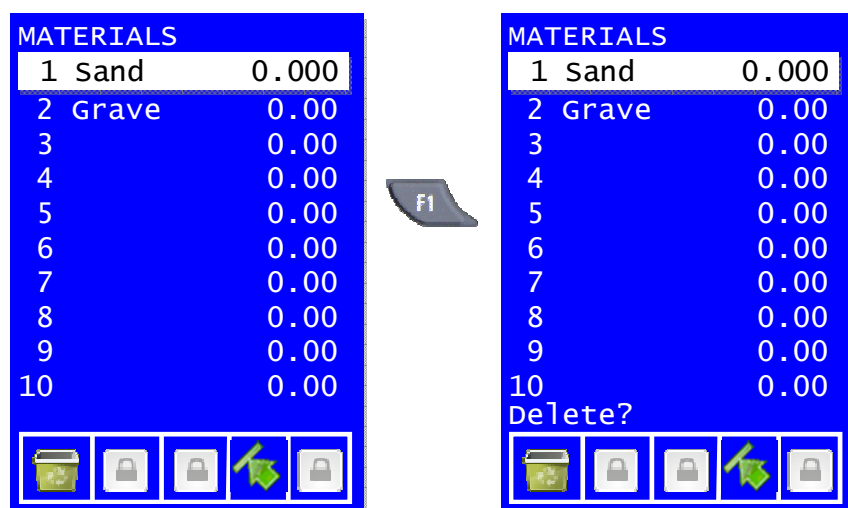
- Press  to confirm value and return to the previous page.






4.6.5 Show Totals

Totals Summary Menu






The complete list of the selected item with its total load is shown.



- Use   to scroll the list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first page.


Delete Totals

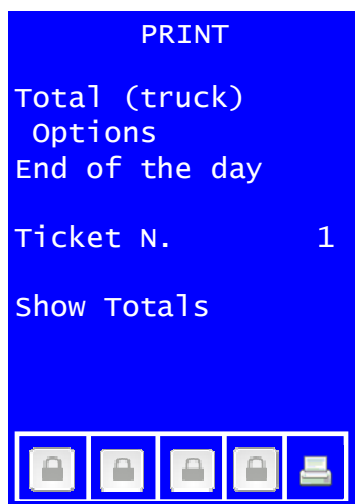
-  Press  to singularly zero each total and confirm with .

To zeroing all the totals summary use "Materials Total" in the "Loads Delete" page.

4.7 STM295 PRINT MENU

Print Menu for printer STM295

- From the main operating screen press  to access the "PRINT" menu.



Total (truck)

Print the total load of the actual truck.





Options

Menu of the additional information that can be enabled/disabled in the ticket options page.

End of the day

Print summary Menu

Ticket N. Sequential number of the printer ticket automatically increased at every total (truck) print.

- Press  to enter the setting ,  or  to set value. Press  to confirm

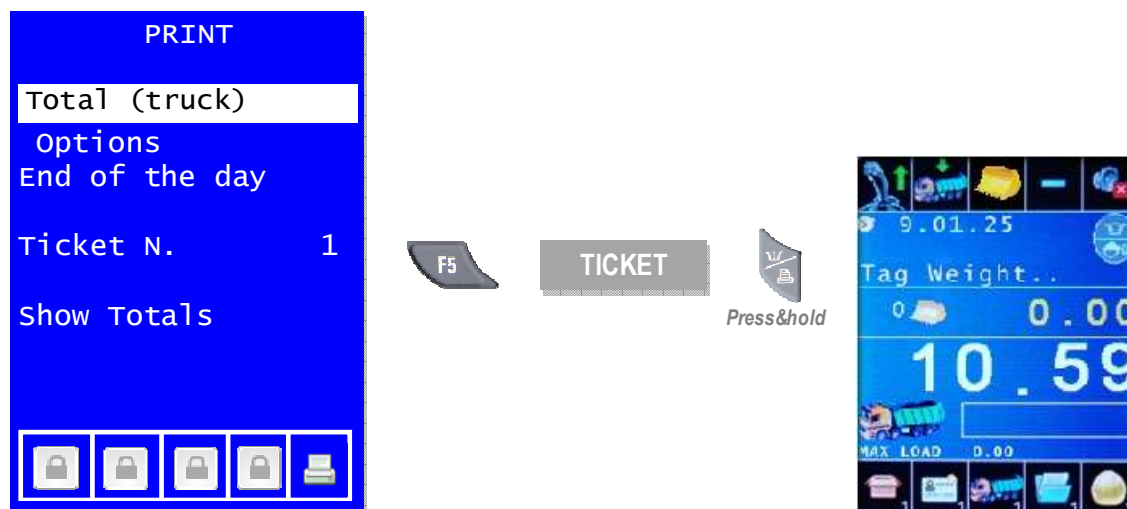
- Press directly  to return to "1".

Shows Totals

Totals Menu

4.7.1 Total (truck): Print Ticket

Printing of the total load of the actual truck.



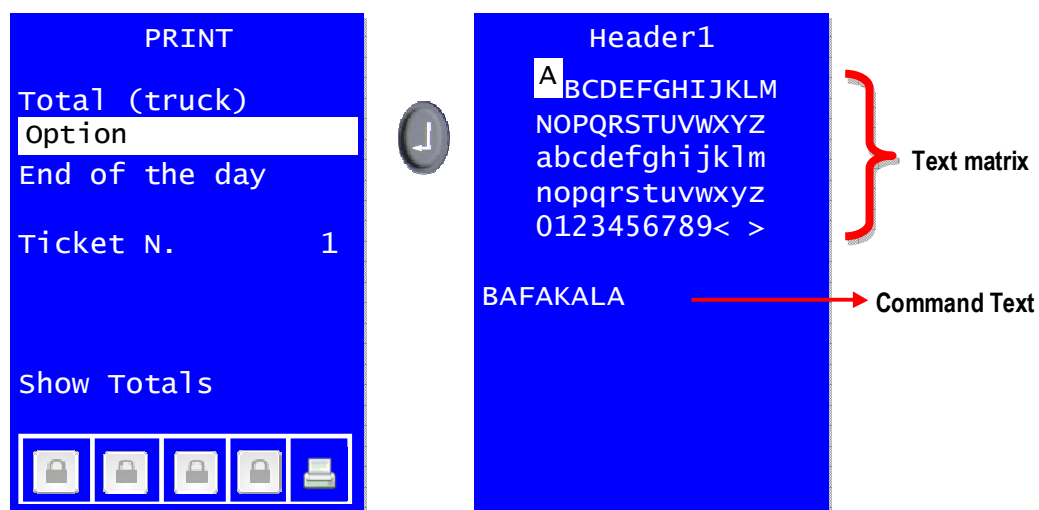
➤ From the "Print Menu" press to print the ticket.

➤ The ticket can be also printed immediately from the main operating screen by keeping pressed .

Options

The ticket has to be created based on the needed information and the space on the ticket paper.

Every information has its proper command that has to be entered on the "option" menu.



➤ To set a name select in the text matrix the desired character using the arrows and press to add it to the text in creation. It's possible to use the special character "<" and ">" to move the cursor in the text and change/correct a character.

➤ Press to confirm value and return to the previous page.

Command string example: **BAFAKALA** (Refer to the following command list)

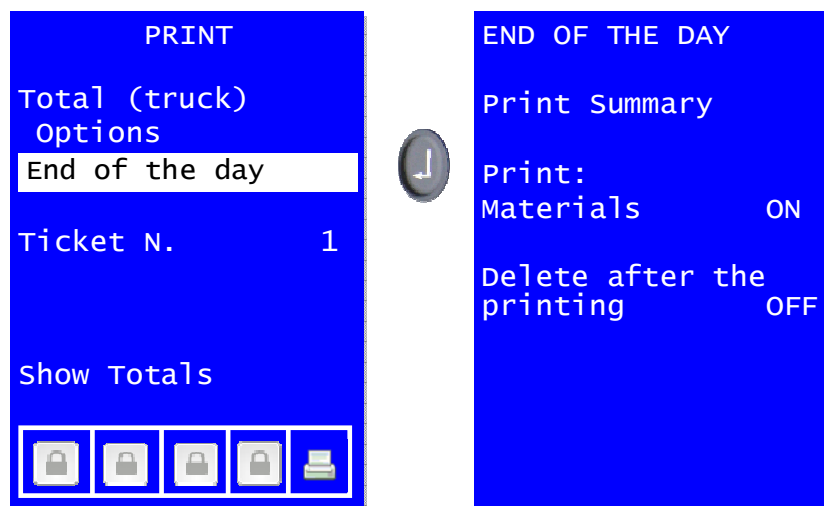
- Will print the following information with text at standard height (“**B**” command):
- (“**A**” command)
- Time and Date (“**F**” command)
- (“**A**” command)
- Ticket Number (“**K**” command)
- (“**A**” command)
- Total (truck load) (“**L**” command)
- (“**A**” command)

COMMAND LIST


Command	Function
A	Line Feed
B	Normal Character
C	Double Width Character
D	Double Height Character
E	Double Width and Height Character
F	Time and Date
G	Material Code
H	Material Name
I	Operator Code
J	Operator Name
K	Ticket Number
L	Total Load (truck)
M	Customer Code
N O P Q R S T U	Customer Name (each character is a name line – up to 8 lines)
V	Cubic Meters
W	Truck Code
X Y Z a b c d e	Truck Name – number plate (each character is a name line – up to 8 lines)
f	Project Code
g h i j k l m n	Project Name (each character is a name line – up to 8 lines)
o	Buckets Number

4.7.2 End of the day

At the end of a truck load, when the “Delete Total” function is used, the total load shown on the display is added in a dedicated memory that creates the history (summary) of the loaded material called “**totals**” (end of the day summary). Is recorded all the material loaded separated by Materials.Enable/disable the totals to print.



Print Summary

Entering the page “End of the day” is possible to start immediately the print pressing again  over “Print Summary” and will be printed the total of every item.

Eventually it's possible to choose what has to be printed (OFF/ON).






Note: this printing can't be customized so be careful about the paper size / quantity of data.

Print :Materials

- ON / OFF: Enable/disable the totals to print separated by materials

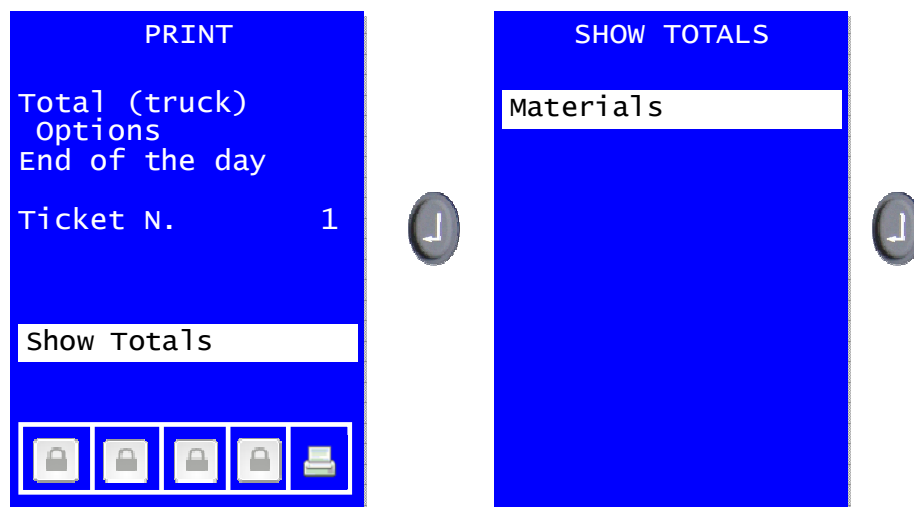
Delete after the printing

- **ON:** The totals database will be automatically deleted at the print end.
- **OFF:** The totals database will stay in memory and incremented (in case of new loads) up to the use of the function “Materials Total” from the DELETE menu.

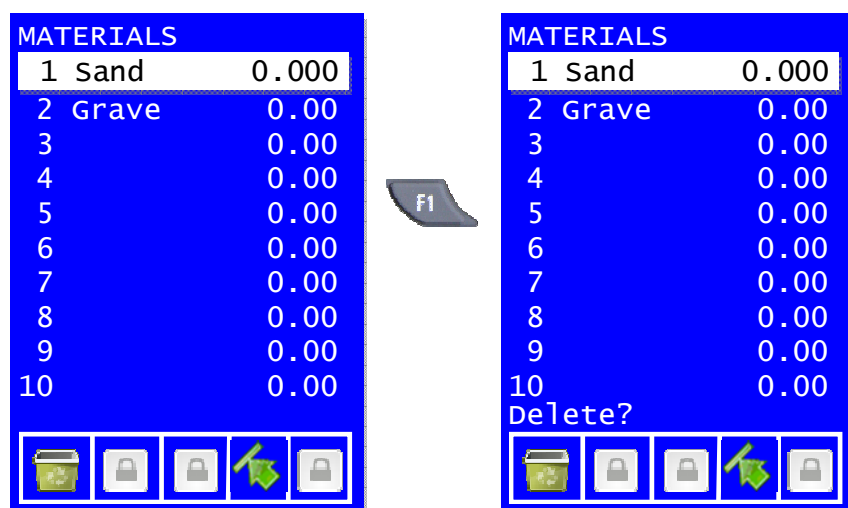
- Press  to enter the setting and use  ,  to set. Confirm with  key.
- Press  to return to the previous page.






4.7.3 Show Totals

Totals Summary Menu






The complete list of the selected item with its total load is shown.



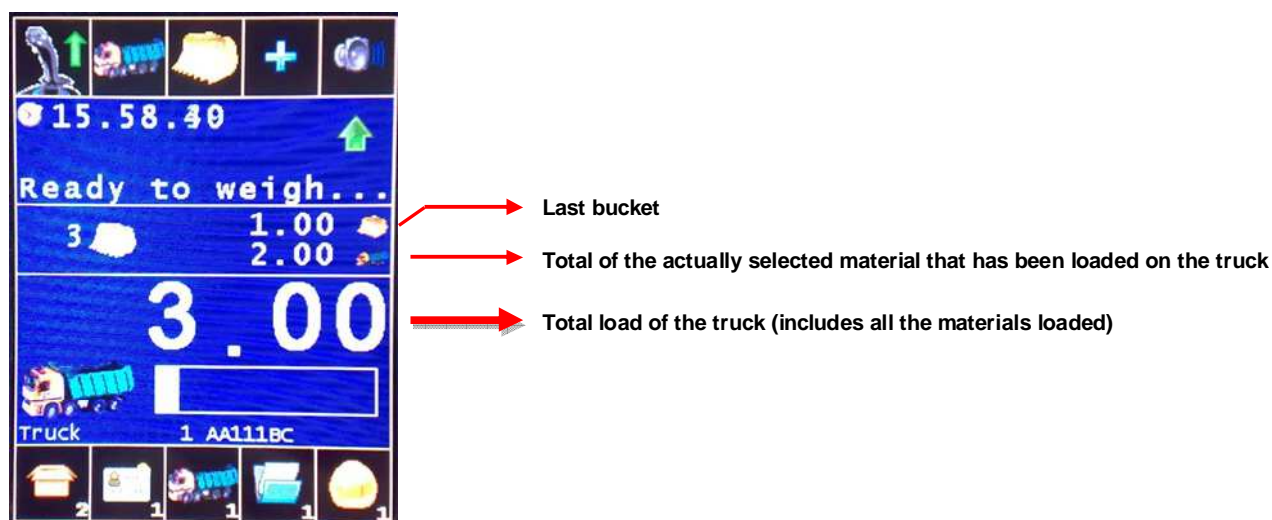
- Use   to scroll the list pages
- Press  to go back to the operating screen or exit a function
-  Press  to return to the first page.

Delete Totals

-  Press  to singularly zero each total and confirm with .

To zeroing all the totals summary use "Materials Total" in the "Loads Delete" page.

4.8 MULTI-PRODUCT AND MULTI-TRUCK FUNCTION



The **Multi-Product** function enables the possibility to load up to 10 different products on the same truck.

The operator can load on the same truck different materials. See this example:

- 1) Select as usual the first material to load (GRAVEL) and start to fill the truck
- 2) After one or more buckets the operator is free to select another material (SAND) and start to load this material.
- 3) When the quantity of the second material is enough the operator can select a third material to load or return to the first (GRAVEL in this example) continuing from the previous value of load reached.

If you have used the Multi-Product function during the load of a truck you can see in the printer ticket the total truck load as usual and the single load of each material.

The system memorizes these data at the end of the truck load as usual ("delete total") keeping the correct load for every material.

The **Multi-Truck** function is always enabled and is completely transparent by the operator. Changing the truck selected during a load (Total Load > 0) system freezes in memory actual load and it starts again to load from 0. Then you can finish the second truck (usually with print total and delete total) and load again previous truck selecting it's code (previous values are restored on the display!).


NOTE: using Multi-Product and Multi-Truck all the partial values are lost switching off the system during a load!

4.9 WEIGHING CORRECTION

If the system weighs always heavier or lighter than the real load weighed (compared to a certified weigh bridge for example) it's possible to tune the accuracy using the correction function and adjust it with a % variation.

The correction must be the same as the found error.



- From the main operating screen keep pressed  key. Will be displayed the *Setup* menu.

System Setup / Diagnostic

Refer to the Installation and Calibration Manual


Correction Speed Compensation Setting

This % correction value is directly applied to the measured load.

In the speed compensation is limited from 70% to 130%

If a limit is reached, usually something in the calibration is not good like reference speed different from calibration or too slow.

- Press  to enter the setting and use  ,  to set. Confirm with  key.

- Press  to return to the previous page.

Example :

If the system weighs 5% less than the real weight, the value of correction must be increased of 5 percentage points.

If the system weighs 5% more than the real weight the value of correction must be decreased of 5 percentage points.

4.10 MEASURE UNITS

The system is designed to use a machine to load trucks / dumpers.

Using the system for other reasons / work environment it's maybe possible to reach the system computation (max values shown) limits.

Please note that the "." shown into the numbers below it's the decimal separator sign.

6 digits (default)

Value U.M.	Total load	Partial load	Bucket n°	Target Load	Display Totals max value x each material shown
Kg	999990	999990	1-999	1-999990	999999
metric ton	999.99	999.99	1-999	0.01-999.99	999999
pounds	999990	999990	1-999	1-999990	999999
short ton	999.99	999.99	1-999	0.01-999.99	999.99
long ton	999.99	999.99	1-999	0.01-999.99	999.99

9 digits with parameter "Fixed UM" = ON (refer to the Calibration Manual)

If six digits are few, it's possible to set more digits through a parameter that allows the use of nine digits (this is the limit). Then if the "Fixed UM" is disenabled (OFF) there are limits while if the "Fixed UM" is enabled (ON) there are another limits (refer to the Calibration Manual).

The limits of values with nine digits and "Fixed Unit" ON are the following:

Value U.M.	Total load	Partial load	Bucket n°	Target Load	Display Totals max value x each material shown
Kg	200000000	200000000	1-999	1-200000000	200000000
Lbs	200000000	200000000	1-999	1-200000000	200000000
metric ton	999.99	999.99	1-999	0.01-999.99	200000000
pounds	999990	999990	1-999	1-999990	200000000
short ton	200000.00	200000.00	1-999	0.01-200000.00	200000.00
long ton	200000.00	200000.00	1-999	0.01-200000.00	200000.00

9 digits with parameter “Fixed UM” = OFF

If six digits are few, it's possible to set more digits through a parameter that allows the use of nine digits (this is the limit). Then if the “Fixed UM” is disabled (OFF) there are limits while if the “Fixed UM” is enabled (ON) there are another limits (refer to the Calibration Manual).

The limits of values with nine digits and “Fixed Unit” OFF are the following:

Value U.M.	Total load	Partial load	Bucket n°	Target Load	Display Totals max value x each material shown
Kg	90700000	90700000	1-999	1-90700000	90700000
Lbs	199956313	199956313	1-999	1-199956313	90700000
metric ton	999.99	999.99	1-999	0.01-999.99	90700000
pounds	999990	999990	1-999	1-999990	90700000
short ton	99977.70	99977.70	1-999	0.01-99977.70	90700.00
long ton	89266.03	89266.03	1-999	0.01-89266.03	89266.03

5

Alarms

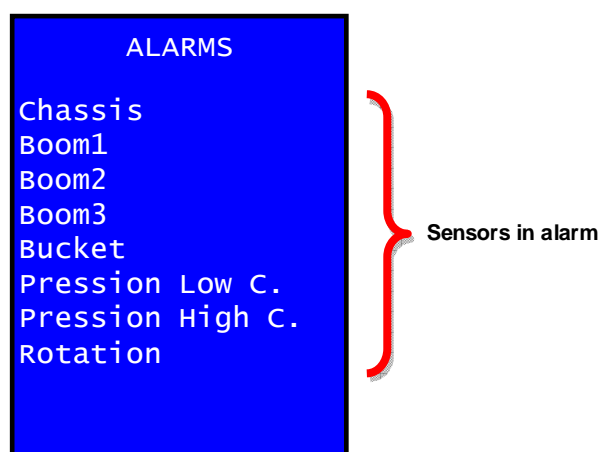
During the normal work, if the control box doesn't receive a sensor, the alarm page will appear.

Please note that if the problem is a broken cable, all the sensor after the failure in the line will be in alarm.

It's also possible that if there's a short circuit in the line all the angular sensor will be in alarm.

The user can verify the status of the cables/connectors and restart the control box to see if the problem persist.

In this situation the system can't be used and it's only possible to enter in the diagnostic and eventually in the calibration section with the proper password (refer to the Installation and Calibration Manual).



Alarms Table				
Alarms			Active on	
			Front Loader	Fork Lift
1	Chassis	Chassis not found	Weigh with angle (S5)	
2	Bucket	Bucket not found	Weigh with angle (S5)	
3	Pressure Low C.	Pressure Transducer not found	Weigh with proxy (S4), Weigh with angle (S5)	Weigh Fork Lift Kit (S6)
4	Rotation	Rotation too fast for five seconds	Weigh with proxy (S4), Weigh with angle (S5)	Weigh Fork Lift Kit (S6)

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